From: Darla J White
To: Nancy Rumrill/R9/USEPA/US|||EPA
Cc: Robin Knox , Meghan Dailer
Date: 06/23/2009 03:37 PM
Subject: Lahaina (Maui) Wastewater Underground Injection Wells

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OBJECTIVE: To further our understanding of the marine environment through research and education in order to promote conservation and longevity of these ecosystems.

June 23, 2009

U.S. Environmental Protection Agency,
Ground Water Office (WTR-9),
75 Hawthorne Street,
San Francisco, CA 94105

Attn: Nancy Rumrill
Delivered via email to: rumrill.nancy@epa.gov
Re: Comments on Revised UIC Permit and Request for Public Hearing
Lahaina (Maui) Wastewater Underground Injection Wells

Dear Ms. Rumrill,

I know I speak on the behalf of the greater island community when I say ‘mahalo’ for the time and attention that the EPA has given to the revision efforts of the Lahaina UIC permit.. There has been substantial positive progress and that is acknowledged and appreciated.
I am a marine scientist and research diver for the State and the University, though I am writing on my own behalf. As a resident and ocean user, and as someone knowledgeable of the coral reef environment, I am witness to the degradation of the coral reef ecosystems here on Maui. The reef at Kahekili, as well as other regions near injection wells, is heavily impacted by nutrient pollution. This one reef has suffered a decrease of 50% live coral cover over the past decade, which is the time span of the last injection well permit. There are assuredly multiple stressors to the reef, including invasive algal species which are fueled by said nutrient pollution. Current research results verify the stable nitrogen isotope ratios in algae in the vicinity of injection wells indicate wastewater sources. I have sampled water from the seeps at Kahekili and seen how the

seepwater (freshwater flowing out of the substrate in the vicinity of the reef) influences algal growth. This ecosystem is in peril and does not have a lot of time…the pollution stressors need to be removed now..

The nitrogen reduction schedule is a great step forward, as they are a reduction from the previously permitted loads, but in actuality it is not a reduction at all and I think that the way it is presented is ambiguous and misleading, especially since the current loads are not given. It would be more transparent to present a percent reduction on a quarterly schedule for the public to better comprehend. A thorough Information and Fact Sheet would be appropriate for the public to comprehend the issues and make informed comments.

The goal of treatment to R-1 by the end of 2011 is admirable, but I would like to emphatically request that more advanced treatment be required and implemented. Nitrogen reduction alone does not address the micronutrients that are required for algal growth and overgrowth on the reef. R-1 is the bare minimum, and we should strive for better quality water both for the environment and public health. R-1 by UV does not kill vibrios, a pathogenic bacterium, some strains of which have been linked to coral disease, nor does it kill viruses. Hazardous chemicals, endocrine disrupters, antibiotic resistant pathogens, and other health hazards are not addressed. I personally have also had MRSA several times, three confirmed by hospitals, including one minor surgery. Public health is a very important issue here. Testing needs to be done and treatment needs to be consistent with potential health threats. We do know enough to take action and make better requirements.

Additional specific points:

Section A.3.

There is no mention of a test/monitoring well to verify the fate and transport of injected fluids or to define the plume with monitoring. How can you know if the drinking water resource is being protected? Is it reaching the ocean before it reaches the aquifer? I request that a monitoring well system be mandated for this permit.

Section C.3.

Lowering the injection limit to 7.0 mgd does not make any impact on the current three to five million gallons a day currently being disposed of via injection wells in Lahaina. I acknowledge that this permit is for the next ten years and as such should take into account increasing population and use; however, the goal should be to decrease the total load of pollution to the environment. I suggest that the average daily volume per week not exceed 5.0 mgd, with a daily maximum not to exceed 7.0 mgd. To that end, were the pollutant loads of the wastewater to be reduced through advanced treatments and the quality of the water could be deemed ‘not toxic’, then a greater volume would not be deleterious to the environment or the uses.

Section C.4.a.

I agree that no hazardous materials should be disposed of, as stated. As such, the wastewater itself contains hazardous materials and should be treated to a greater purity. The technologies exist, both through natural processes or advanced treatment.

Due to the real and potential impacts of the Lahaina injection wells to the environment and public health, the UIC permit should be revised to reflect the existing concerns. I would also like to request a public hearing here on Maui in order to allow time for the

public to be informed transparently of the current uses and proposed permit changes. I would also like to request a response to my concerns stated herein.
I appreciate your time and consideration.
Best regards,
Darla White

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